



New Features in ShipWeight 13.0

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Main window

Possibility to summarize and estimate on secondary WBS

You can select any of your custom codes that has a hierarchy structure and view this in the main window along with the main WBS as a secondary WBS. You can also do parametric estimation on this secondary WBS. This allows you to set up a parametric estimation as a matrix.

ShipWeight 13.01.03.01 [BAS-AH01(Asbuilt 11)] - ShipWeight Enterprise

Project Edit View Database Weight Groups Items Checking Std.dev. Estimate Help

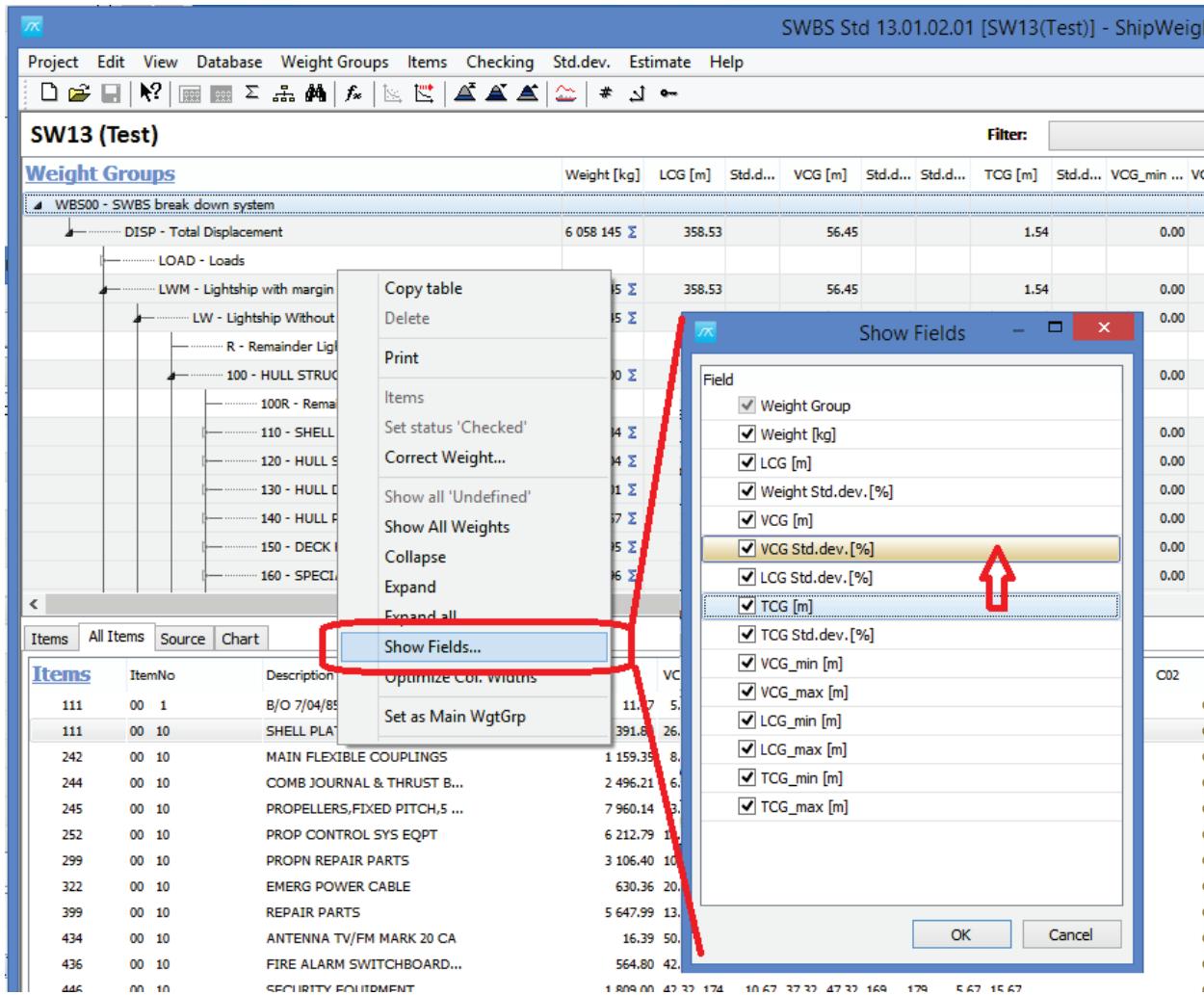
File Edit View Database Weight Groups Items Checking Std.dev. Estimate Help

BAS-AH01 (Asbuilt 11) BAS Anchor

Weight Groups	Weight [t]	Std....	LC...	VCG	Std....	Std....	TCG...	...			
WBS00 - ShipWeight break down system											
LW - Lightship	6 393	43.06	7.72				-0.03				
R - Remainder	1 274	31.95	6.02				0.13				
E - Equipment											
ER - Remainder equipment	499	30.85	5.73				0.32				
E1 - Equipment for cargo	468	31.82	6.11				0.00				
E2 - Ship equipment	226	31.39	6.88				0.00				
E3 - Accommodation	81	41.09	4.96				0.00				
E4 - Ship systems											
E4.R - Remainder ship systems	1	0.00	31.53	8.54	0.00	0.00	0.00				
E4.1 - Ballast & bilge systems	1	0.00	27.95	8.13	0.00	0.00	0.00				
E4.2 - Fire fighting & wash down syst.	3	0.00	18.10	5.55	0.00	0.00	0.00				
E4.3 - Air & sounding syst.	5	0.00	36.72	5.88	0.00	0.00	0.00				
E4.4 - Hydraulic oil system											
E4.5 - Centr. heat transf. syst.											
E4.6 - Electric systems	71	0.00	42.63	4.78	0.00	0.00	0.00				
H - Hull	4 700	46.47	8.31				-0.08				
M - Machinery	419	38.62	6.29				0.00				
T - Topside											
WBS01 - Disciplines											
Total - Disciplines	285										
B - Bulk	163										
BR - Overflatebehandling	33										
BE - Elektro bulk	71										
BH - HVAC bulk	11										
BI - Innredning bulk	0										
BM - Maskin og rør bulk	49										
BS - Stål	0										
E - Utstyr	122										
EE - Elektro utstyr	5										
EH - HVAC utstyr	0										
EI - Innredning utstyr	7										
EM - Maskin og rør utstyr	110										
Items All Items Source Chart											
Items	WgtGrp	ItemNo	Description	Weight [t]	LCG [m]	VCG [m]	TCG [m]	VCG_min [m]	VCG_max [m]	LCG_min [m]	LCG_max [m]
E4.6		00001	Electric systems	64.073	42.033	4.698	0.000	0.000	0.000	0.000	0.
E4.6		00002	Electric systems	7.215	47.971	5.512	0.000	0.000	0.000	0.000	0.
Total				71.288	42.634	4.780	0.000	0.000	0.000	0.000	0.1

Possible to change field order in Main Window

You can change the order of the column in the main window. In version 12 you could turn visibility on and off by right clicking in the main window treeview and select "Show fields". New in version 13 is that you can now also rearrange the order by dragging and dropping the items in the list.





See all items in preview in main window

All items can now be shown in the preview area of the main window, in addition to the existing option that shows only items for the current selected weight group.

The screenshot shows the ShipWeight Enterprise software interface. At the top, there's a menu bar with Project, Edit, View, Database, Weight Groups, Items, Checking, Std.dev., Estimate, and Help. Below the menu is a toolbar with various icons. The main window has two tabs: "Weight Groups" and "Items".

Weight Groups Tab:

	Weight [kg]	LCG [m]	Std.d...	VCG [m]	Std.d...	Std.d...	TCG [m]	Std.d...	VCG_min ...	VCG_max ...	LCG_...
WBS00 - SWBS break down system											
..... DISP - Total Displacement	6 058 145	358.53		56.45			1.54		0.00	0.00	
..... LOAD - Loads											
..... LWM - Lightship with margin	6 058 145	358.53		56.45			1.54		0.00	0.00	
..... LW - Lightship Without Margins	6 058 145	358.53		56.45			1.54		0.00	0.00	
..... R - Remainder Lightship											
..... 100 - HULL STRUCTURE, GENERAL	3 082 900	359.78		54.59			0.42		0.00	0.00	
..... 100R - Remainder Hull Structure											
..... 110 - SHELL AND SUPPORTING STRUCTURE	967 534	333.75		31.14			0.35		0.00	0.00	
..... 120 - HULL STRUCTURAL BULKHEADS	429 904	337.30		51.19			0.51		0.00	0.00	
..... 130 - HULL DECKS	682 101	367.62		78.15			0.93		0.00	0.00	
..... 140 - HULL PLATFORMS AND FLATS	170 767	394.01		22.93			0.00		0.00	0.00	
..... 150 - DECK HOUSE STRUCTURE	218 495	491.71		130.57			-0.34		0.00	0.00	
..... 160 - SPECIAL STRUCTURES	167 096	441.93		52.62			-2.03		0.00	0.00	

Items Tab:

Items	ItemNo	Description	Weight [t]	VC...	LC...	TC...	VC...	VC...	LC...	LC...	TC...	TC...	C01	C02	C03
111	00 1	B/O 7/04/85 DK DWGS	11.57	5.43	1.34	0.54	0.43	10.43	-3.66	6.34	-4.46	5.54	Change ord...	C	Y
111	00 10	SHELL PLATE FWD STA 0	2 391.82	26.73	-2.50	0.00	21.73	31.73	-7.50	2.50	-5.00	5.00		C	Y
242	00 10	MAIN FLEXIBLE COUPLINGS	1 159.35	8.49	138...	0.00	3.49	13.49	133...	143...	-5.00	5.00		C	Y
244	00 10	COMB JOURNAL & THRUST B...	2 496.21	6.96	152...	0.00	1.96	11.96	147...	157...	-5.00	5.00		C	Y
245	00 10	PROPELLERS,FIXED PITCH,5 ...	7 960.14	3.62	186...	0.00	-1.38	8.62	181...	191...	-5.00	5.00		C	Y
252	00 10	PROP CONTROL SYS EQPT	6 212.79	13.36	101...	0.00	8.36	18.36	96.00	106...	-5.00	5.00		C	Y
299	00 10	PROPN REPAIR PARTS	3 106.40	10.02	135...	0.00	5.02	15.02	130...	140...	-5.00	5.00		C	Y
322	00 10	EMERG POWER CABLE	630.36	20.04	143...	0.00	15.04	25.04	138...	148...	-5.00	5.00		C	Y
399	00 10	REPAIR PARTS	5 647.99	13.36	120...	0.00	8.36	18.36	115...	125...	-5.00	5.00		C	Y
434	00 10	ANTENNA TV/FM MARK 20 CA	16.39	50.11	161...	16.54	45.11	55.11	156...	166...	11.54	21.54		C	Y
436	00 10	FIRE ALARM SWITCHBOARD...	564.80	42.87	152...	0.00	37.87	47.87	147...	157...	-5.00	5.00		C	Y
446	00 10	SECURITY EQUIPMENT	1 809.00	42.32	174...	10.67	37.32	47.32	169...	179...	5.67	15.67		C	Y
498	00 10	OPERATING FLUIDS	254.16	25.97	128...	0.00	20.97	30.97	123...	133...	-5.00	5.00		C	Y
499	00 10	SPECIAL TOOLS	1 299.04	15.03	128...	0.00	10.03	20.03	123...	133...	-5.00	5.00		C	Y
529	00 10	DRAINAGE & BALLASTING	20 332.78	11.04	99.00	0.00	6.04	16.04	94.00	104...	-5.00	5.00		C	Y



Select source for weight group value

The source for the weight and CG of the weight group may now be selected by the preference of the user. This means that we now can save weight and CG for the weight group from several sources. The sources are

- Subjective (freely set)
- Estimate (from parametric estimation), "Items" (sum of item details)
- Percentage (calculated as % of another group)
- Summarize (sum of subgroups)
- Not defined

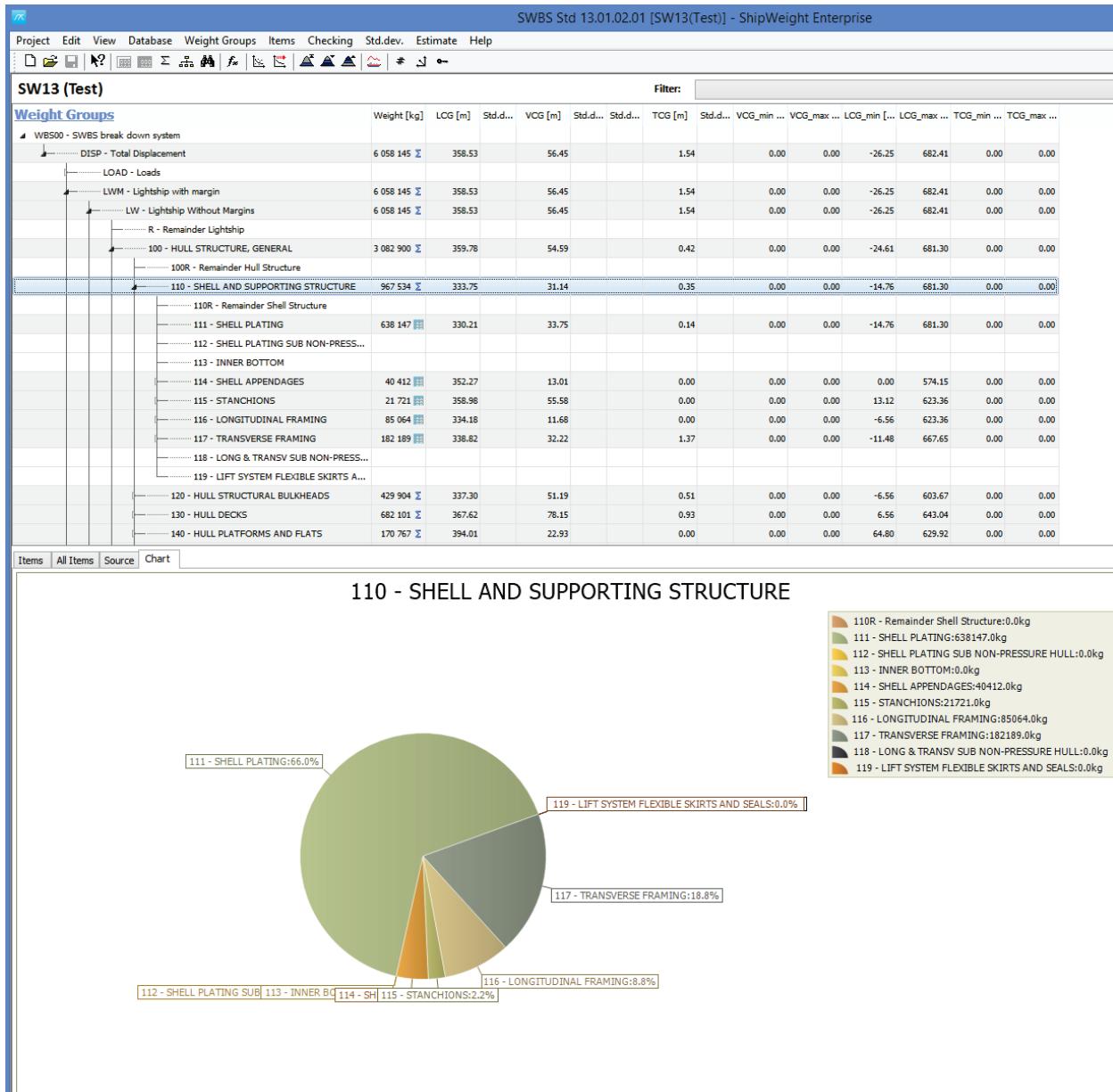
All options may contain values, but it is only the option selected by the user that will be included and calculated in the treeview.

The screenshot shows the ShipWeight software interface with the title bar "SWBS Std 13.01.02.01 [SW13(Test)]". The menu bar includes Project, Edit, View, Database, Weight Groups, Items, Checking, Std.dev., Estimate, and Help. Below the menu is a toolbar with various icons. The main window displays a treeview titled "SW13 (Test)" under "Weight Groups". The treeview shows a hierarchy starting with "WBS00 - SWBS break down system", which branches into "DISP - Total Displacement", "LOAD - Loads", "LWM - Lightship with margin", "LW - Lightship Without Margins", and "R - Remainder Lightship". The "100 - HULL STRUCTURE, GENERAL" node is expanded, showing its sub-components: "100R - Remainder Hull Structure", "110 - SHELL AND SUPPORTING STRUCTURE", "120 - HULL STRUCTURAL BULKHEADS", "130 - HULL DECKS", "140 - HULL PLATFORMS AND FLATS", "150 - DECK HOUSE STRUCTURE", and "160 - SPECIAL STRUCTURES". A detailed table below the treeview lists the weight, LCG, VCG, and TCG for each component. At the bottom, a "Source" selection dialog is open, listing five options: Not def., Subjective, Estimate, Items, Percentage, and Summarize, with "Summarize" selected.

	Weight [kg]	LCG [m]	Std.d...	VCG [m]	Std.d...	Std.d...	TCG [m]	Std.d...
Not def.								
Subjective								
Estimate								
Items								
Percentage								
Summarize	3 082 900	16.64	109.66	0.13	0.00	0.00	-7.50	207.66

New visualization chart for weight

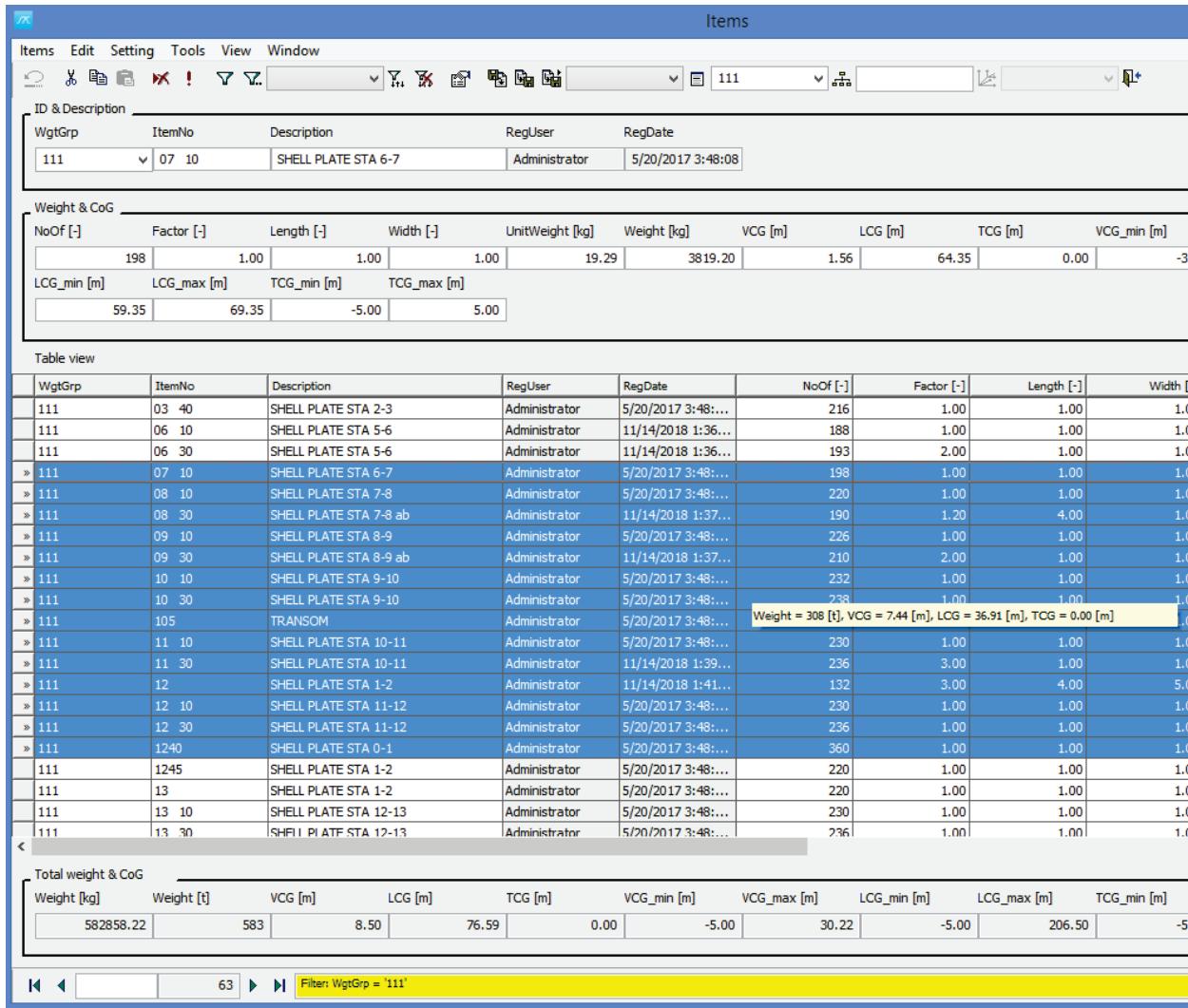
A new tabsheet for “Chart” has been added to the main window. You can now select any of the weight groups in the treeview in the main window and the chart will show the distribution of weight for the subgroups of the selected weight group.



Item window

Function to see totals of selected items in Item Window

You can now select several rows in the item window and hover the mouse pointed over these rows to display a tool tip that will give you the weight and CG summary calculated from the selected items.



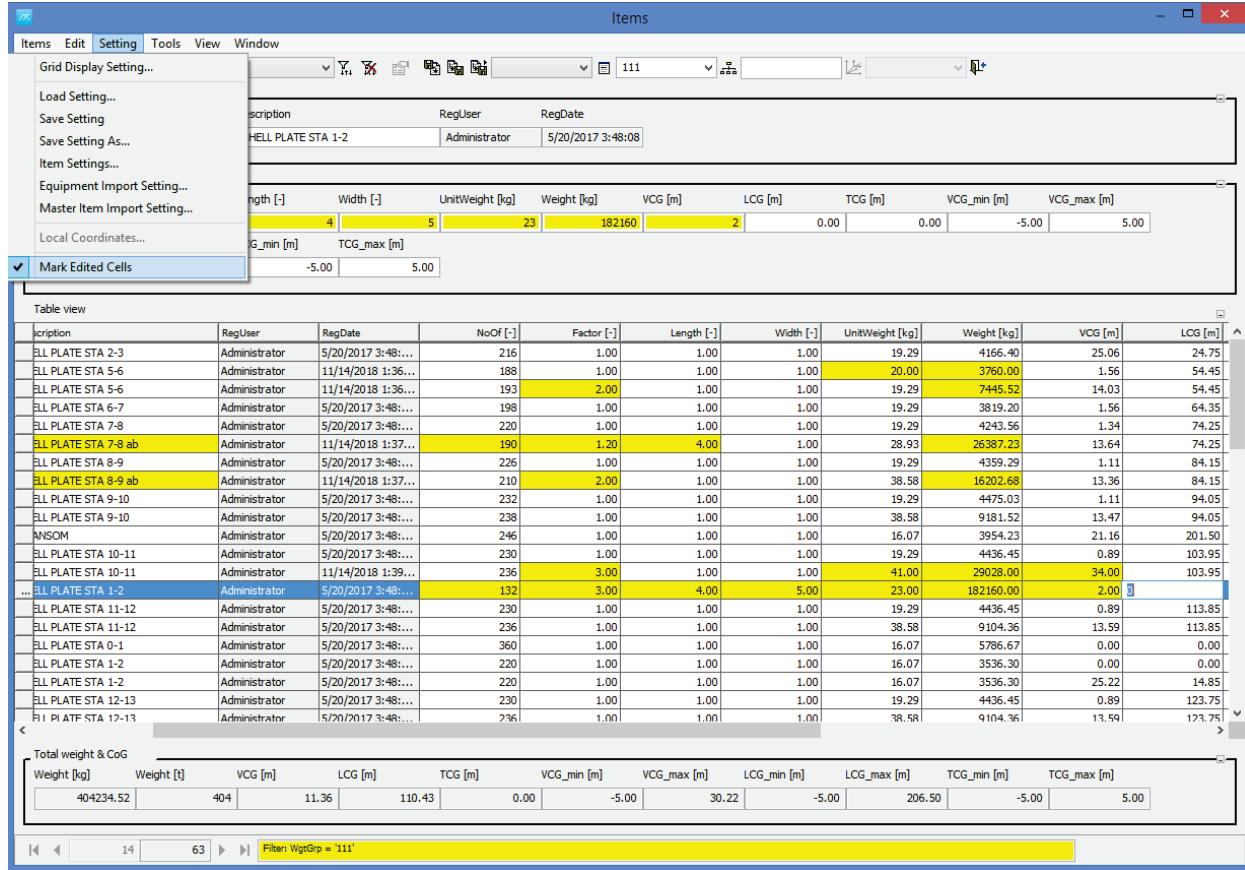
The screenshot shows the ShipWeight Item window interface. At the top, there's a toolbar with various icons for file operations like Open, Save, Print, and Export. Below the toolbar is a menu bar with Items, Edit, Setting, Tools, View, and Window. The main area is divided into several sections:

- ID & Description:** A table with columns for WgtGrp, ItemNo, Description, RegUser, and RegDate. One row is selected, showing WgtGrp 111, ItemNo 07_10, Description SHELL PLATE STA 6-7, RegUser Administrator, and RegDate 5/20/2017 3:48:08.
- Weight & CoG:** A table showing weight calculations. It includes columns for NoOf [-], Factor [-], Length [-], Width [-], UnitWeight [kg], Weight [kg], VCG [m], LCG [m], TCG [m], and VCG_min [m]. Below this are sub-tables for LCG_min [m], LCG_max [m], TCG_min [m], and TCG_max [m].
- Table view:** A large table listing multiple items with columns for WgtGrp, ItemNo, Description, RegUser, RegDate, NoOf [-], Factor [-], Length [-], and Width [-]. Several rows are highlighted in blue, and a tooltip appears over one of them stating "Weight = 308 [t], VCG = 7.44 [m], LCG = 36.91 [m], TCG = 0.00 [m]".
- Total weight & CoG:** A summary table at the bottom with columns for Weight [kg], Weight [t], VCG [m], LCG [m], TCG [m], VCG_min [m], VCG_max [m], LCG_min [m], LCG_max [m], and TCG_min [m]. The values shown are 582858.22, 583, 8.50, 76.59, 0.00, -5.00, 30.22, -5.00, 206.50, and -5.00 respectively.

At the bottom of the window, there are navigation buttons (Back, Forward, Home) and a status bar showing page number 63 and a filter condition: Filter: WgtGrp = '111'.

Mark editing cells stay marked

The “Mark Edited Cells” option will let you have changed cells stay marked even if you leave the row.

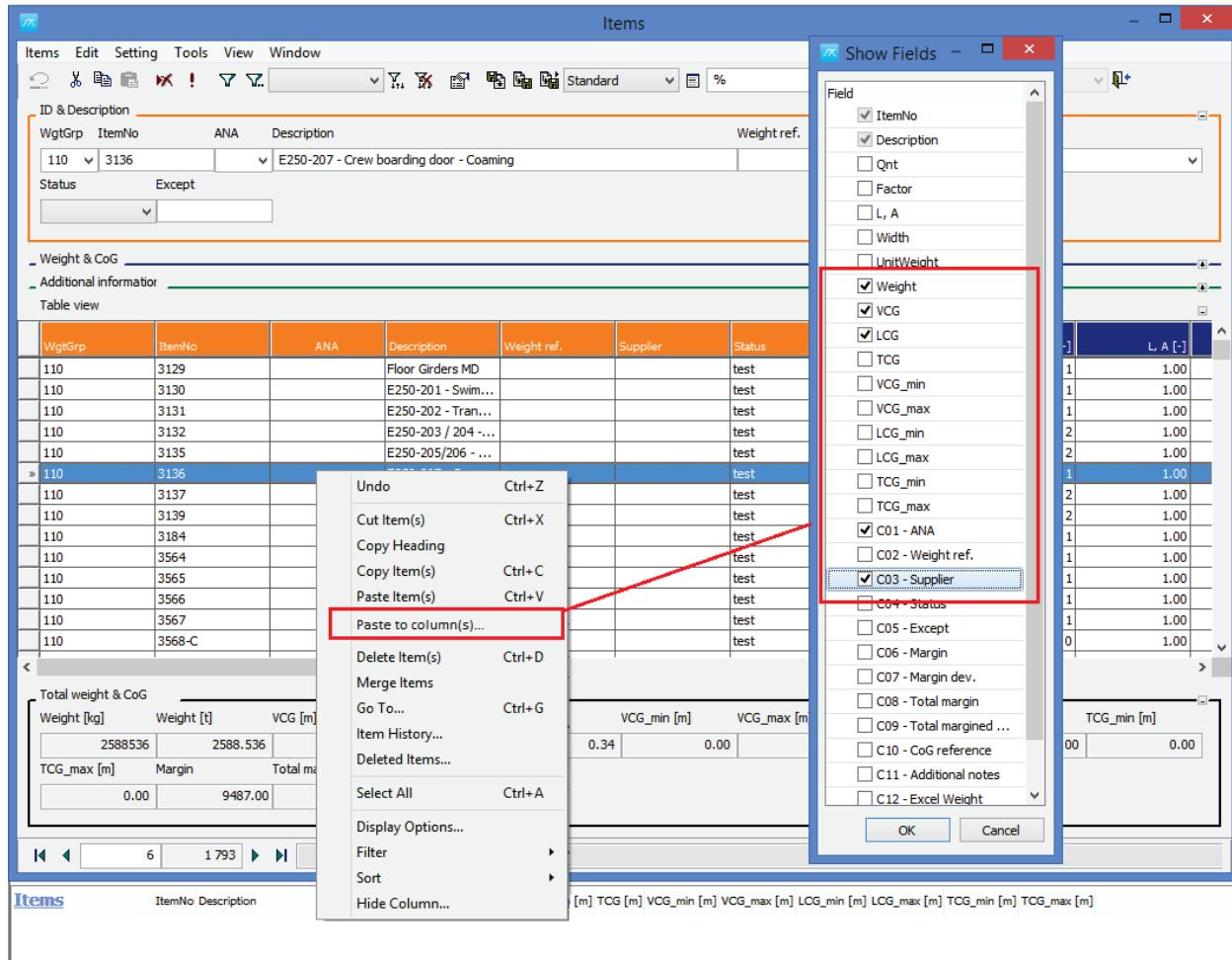


The screenshot shows the ShipWeight application window with the following details:

- Menu Bar:** Items, Edit, Setting, Tools, View, Window.
- Toolbar:** Includes icons for Grid Display Setting, Load Setting, Save Setting, Save Setting As, Item Settings, Equipment Import Setting, Master Item Import Setting, Local Coordinates, and a checked checkbox for "Mark Edited Cells".
- Table View:** A large table listing items with columns: Description, RegUser, RegDate, NoOf [-], Factor [-], Length [-], Width [-], UnitWeight [kg], Weight [kg], VCG [m], LCG [m], TCG [m], VCG_min [m], VCG_max [m]. The last two columns, VCG_min and VCG_max, are highlighted in yellow.
- Total weight & CoG:** A summary table with columns: Weight [kg], Weight [t], VCG [m], LCG [m], TCG [m], VCG_min [m], VCG_max [m], LCG_min [m], LCG_max [m], TCG_min [m], TCG_max [m]. The first column has a value of 404234.52.
- Status Bar:** Shows the filter "Filter: WgtGrp = '111'" and page numbers 14, 63.

Paste values only to certain columns

This function will allow to specify which columns to paste to from the clipboard. Pasting will happen to existing items and from the selected row and below (depending on how many rows are in the clipboard). Picture below shows how to do this in the table:

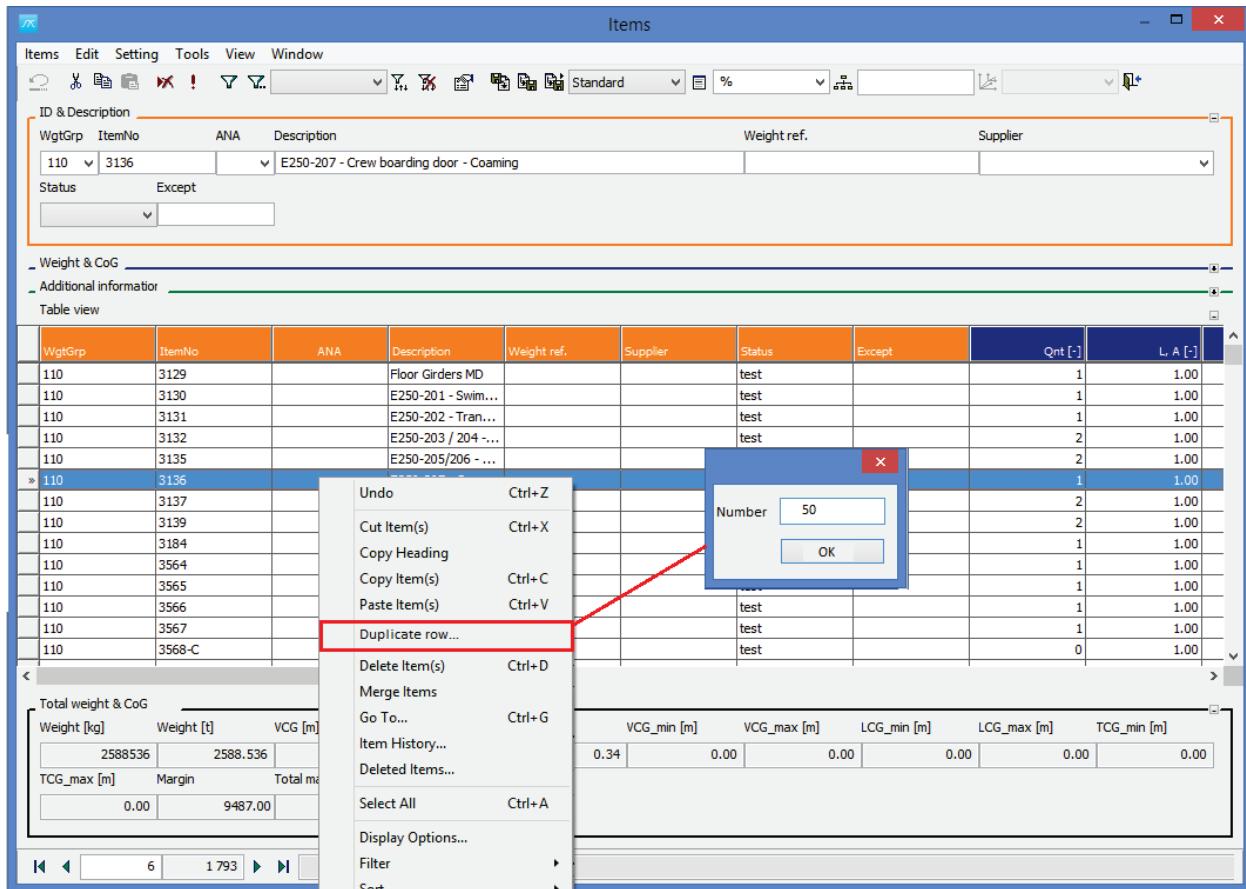


Duplicate Row

A function for easy duplication of a row into any number of copies.

ItemNo can follow the copied one, adding on a suffix to the item 3136_1, 3136_2, 3136_3,...

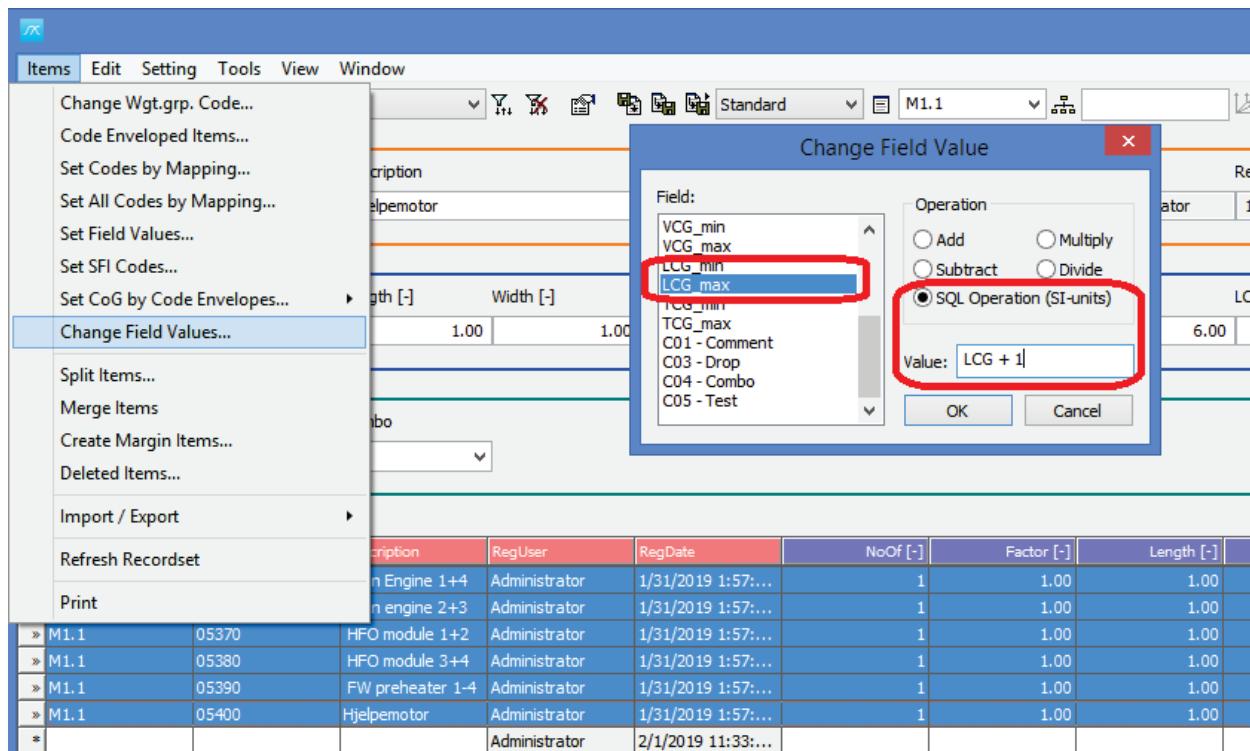
GUI shown here:



SQL-operation as option to change on field values

The “Execute operation” dialog that can be opened from the Item Window has changed name to “Change Field Values...” and has a new option allowing for much greater flexibility than the Add/Subtract/Multiply/Divide options in version 12.

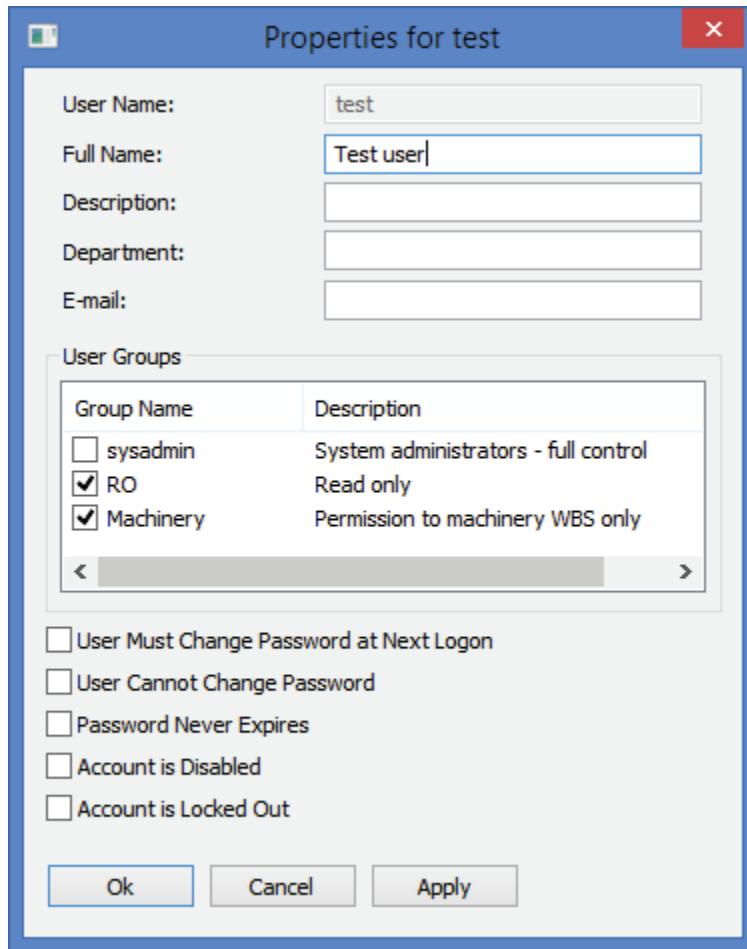
The new option “SQL Operation”, allows the user set a calculation formula to update a field. The calculation formula may refer to other fields. The simple example below shows setting LCG_max values for the selected items to the LCG value plus 1 meter (LCG +1). Note that these expressions should always be set in SI/metric units, even if project is in imperial units.



Permission control

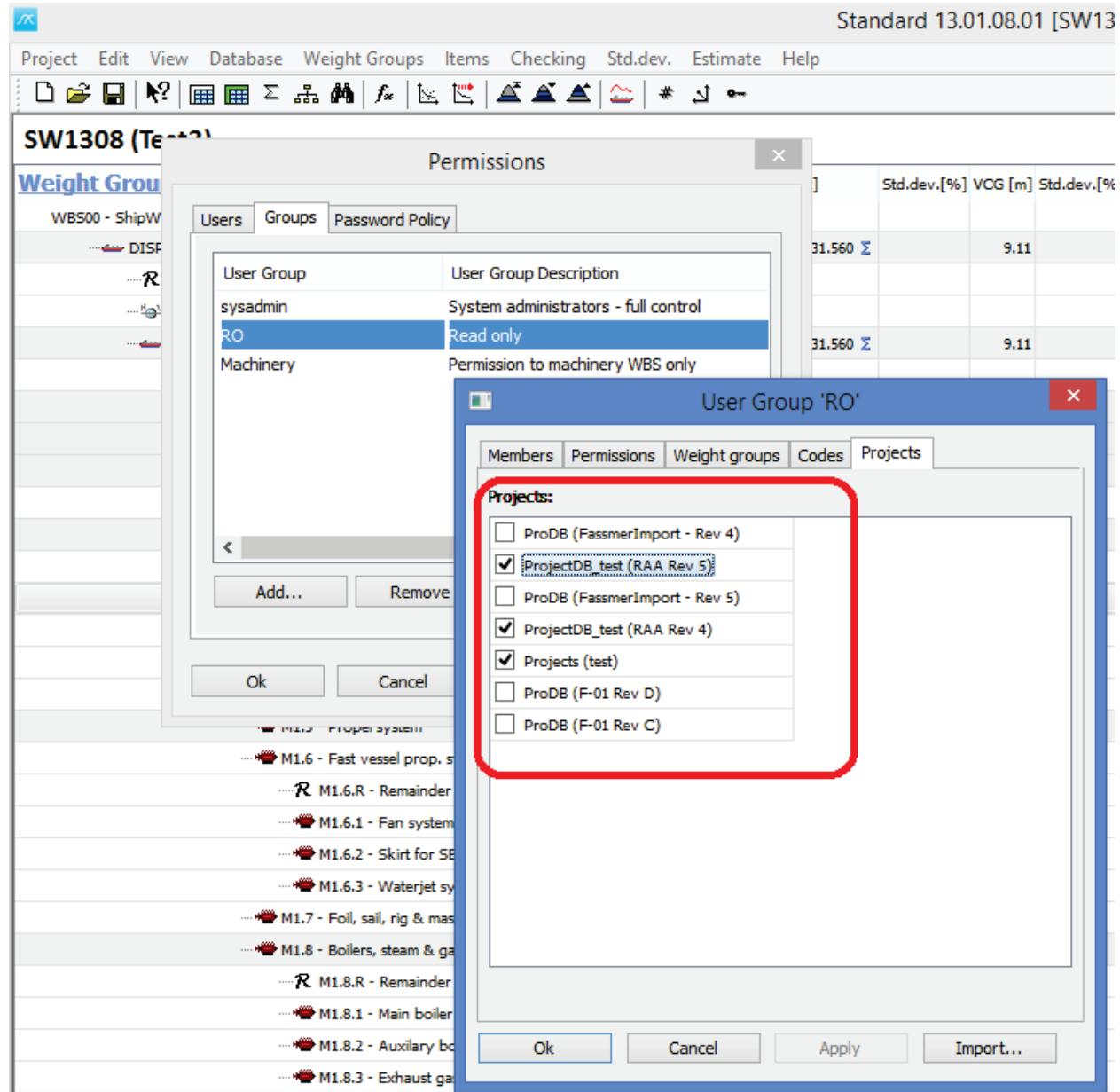
Possibility for a user to belong to several user groups.

There has been a change to the permission system such that a user can belong to several user groups. This will align with how users and groups works in Windows OS. Below shows the change in the User permission window in ShipWeight, new checkboxes indicates which groups the user belongs to.



Easy way of adding group permissions to several projects at once

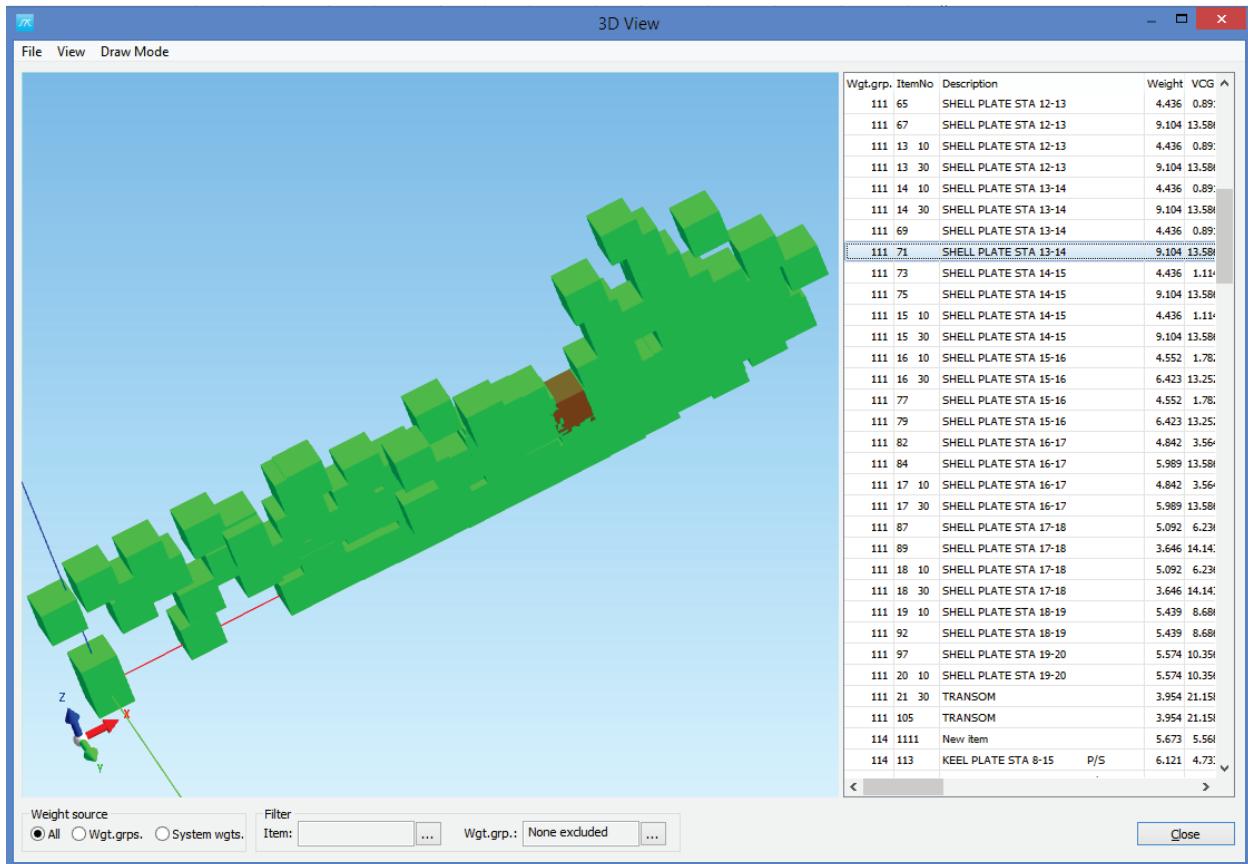
In ShipWeight 13 there is a new tabsheet in the user group property window that lets you easily set which project the user group settings should apply to.



Other New Features

New 3D window

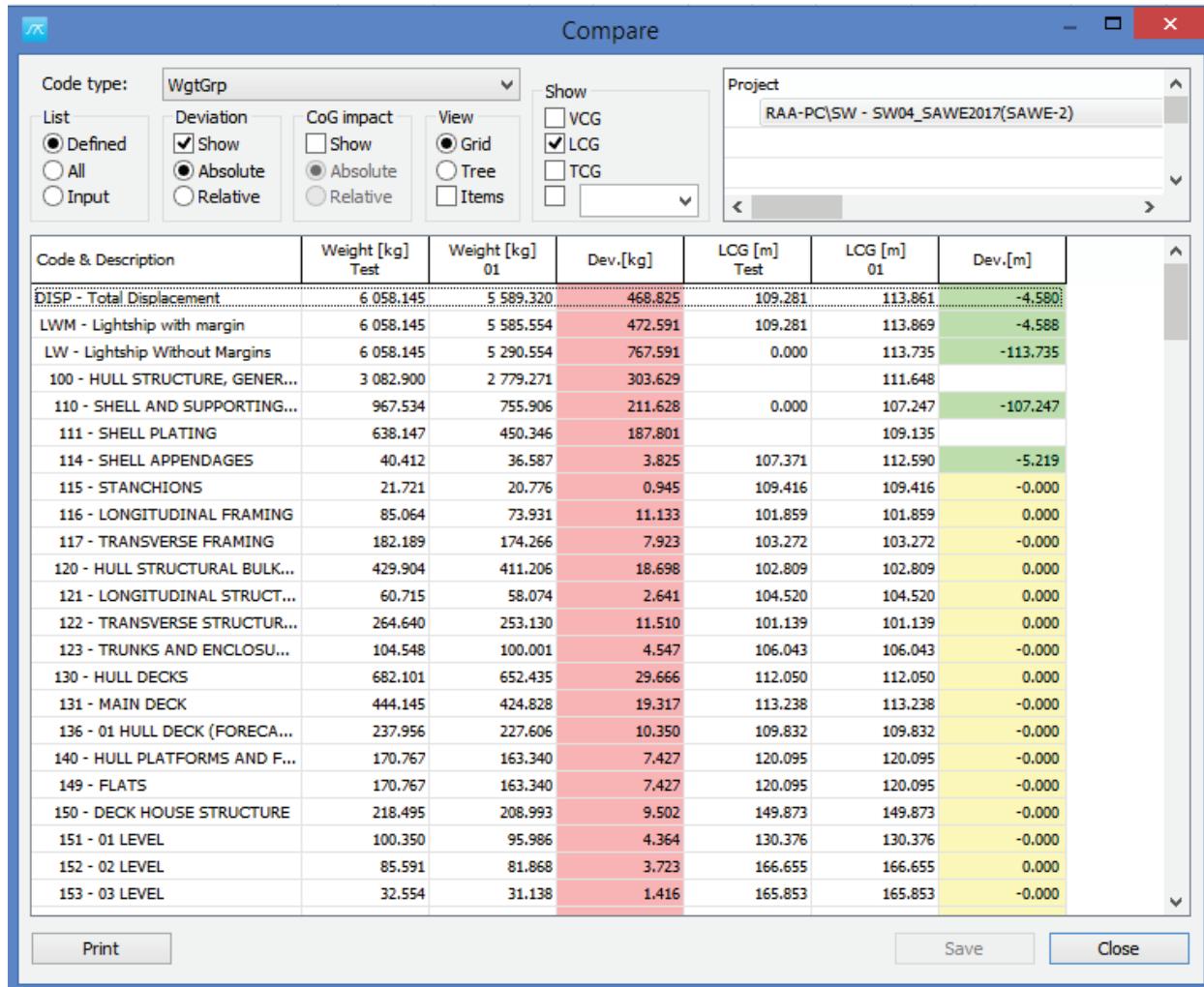
A new 3D window is included to give a graphical user interface of the items in the ShipWeight database, allowing you to click on items to display their properties, slice through the model, colorize particular items and find weight items in the list and show the highlighted in the 3D View.



Improved Compare Window

The Compare Window has several new functions, and the possibility to save the setup you have defined. These settings can be imported and exported between various projects.

Among the new features will be the option to display different weights in different columns as percentage, shades of green/red to signal small/large deviation, as well as import function for items.



The screenshot shows the 'Compare' window in ShipWeight. The window has a header bar with the title 'Compare'. Below the header are several configuration panels:

- Code type:** A dropdown menu set to 'WgtGrp'.
- List:** Radio buttons for 'Defined' (selected), 'All', and 'Input'.
- Deviation:** Radio buttons for 'Show' (checked) and 'Absolute' (selected over 'Relative').
- CoG impact:** Checkboxes for 'Show' (unchecked) and 'Absolute' (checked).
- View:** Radio buttons for 'Grid' (selected), 'Tree' (unchecked), and 'Relative' (unchecked).
- Show:** Checkboxes for 'VCG' (unchecked), 'LCG' (checked), 'TCG' (unchecked), and 'Items' (unchecked).
- Project:** A dropdown menu showing 'RAA-PC\SW - SW04_SAWE2017(SAWE-2)'.

The main area is a data grid with the following columns:

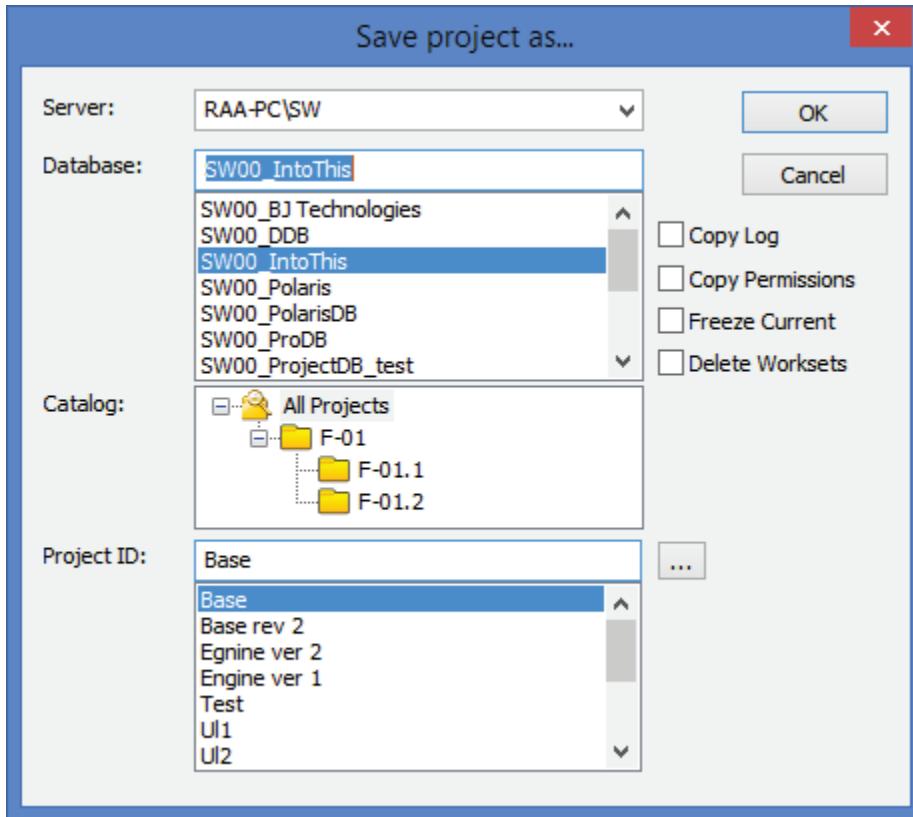
Code & Description	Weight [kg] Test	Weight [kg] 01	Dev.[kg]	LCG [m] Test	LCG [m] 01	Dev.[m]
D1SP - Total Displacement	6 058.145	5 589.320	468.825	109.281	113.861	-4.580
LWM - Lightship with margin	6 058.145	5 585.554	472.591	109.281	113.869	-4.588
LW - Lightship Without Margins	6 058.145	5 290.554	767.591	0.000	113.735	-113.735
100 - HULL STRUCTURE, GENER...	3 082.900	2 779.271	303.629		111.648	
110 - SHELL AND SUPPORTING...	967.534	755.906	211.628	0.000	107.247	-107.247
111 - SHELL PLATING	638.147	450.346	187.801		109.135	
114 - SHELL APPENDAGES	40.412	36.587	3.825	107.371	112.590	-5.219
115 - STANCHIONS	21.721	20.776	0.945	109.416	109.416	-0.000
116 - LONGITUDINAL FRAMING	85.064	73.931	11.133	101.859	101.859	0.000
117 - TRANSVERSE FRAMING	182.189	174.266	7.923	103.272	103.272	-0.000
120 - HULL STRUCTURAL BULK...	429.904	411.206	18.698	102.809	102.809	0.000
121 - LONGITUDINAL STRUCT...	60.715	58.074	2.641	104.520	104.520	0.000
122 - TRANSVERSE STRUCTUR...	264.640	253.130	11.510	101.139	101.139	0.000
123 - TRUNKS AND ENCLOSU...	104.548	100.001	4.547	106.043	106.043	-0.000
130 - HULL DECKS	682.101	652.435	29.666	112.050	112.050	0.000
131 - MAIN DECK	444.145	424.828	19.317	113.238	113.238	-0.000
136 - 01 HULL DECK (FORECA...	237.956	227.606	10.350	109.832	109.832	-0.000
140 - HULL PLATFORMS AND F...	170.767	163.340	7.427	120.095	120.095	-0.000
149 - FLATS	170.767	163.340	7.427	120.095	120.095	-0.000
150 - DECK HOUSE STRUCTURE	218.495	208.993	9.502	149.873	149.873	-0.000
151 - 01 LEVEL	100.350	95.986	4.364	130.376	130.376	-0.000
152 - 02 LEVEL	85.591	81.868	3.723	166.655	166.655	0.000
153 - 03 LEVEL	32.554	31.138	1.416	165.853	165.853	-0.000

At the bottom of the window are three buttons: 'Print', 'Save', and 'Close'.

The calculated values in Compare Window are now saved in a temporary table in the project database, and this feature improves the speed when opening the window. Another new feature to increase speed is that it's now possible to update only one revision at the time.



More “Save As” options

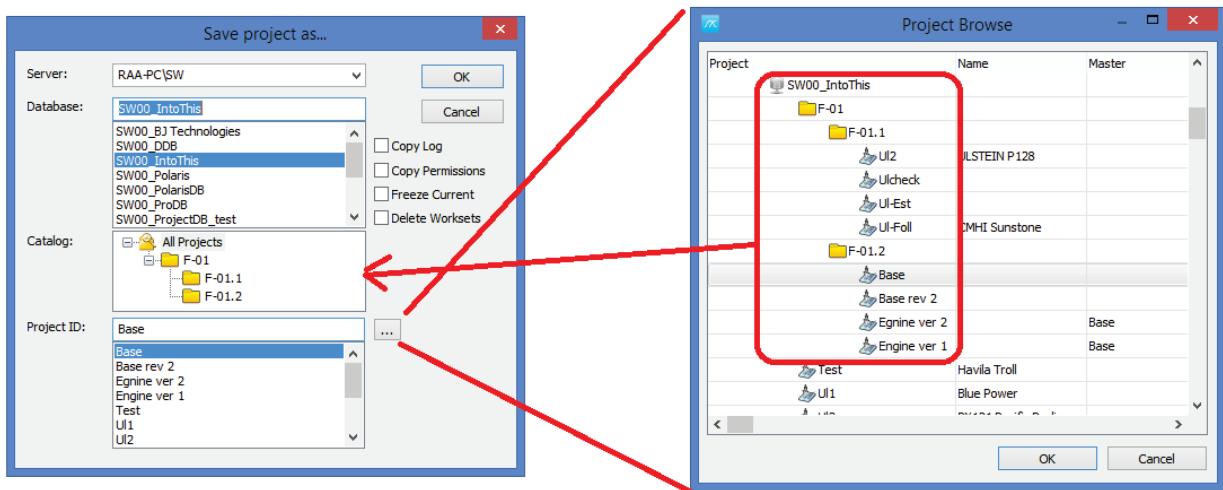


- “Copy Permissions”- if this box is checked, the permission settings for usergroups for this project should be copied to the new project so there is no need to set new permissions.
- “Freeze current” should set all usergroups to be “Read-only” in the project you are saving from.
- “Delete workset” – when you start a new revision and you want to start with a clean set of worksets.

Sort Projects/Revisions in Folders

Create folders to organize your projects and revisions.

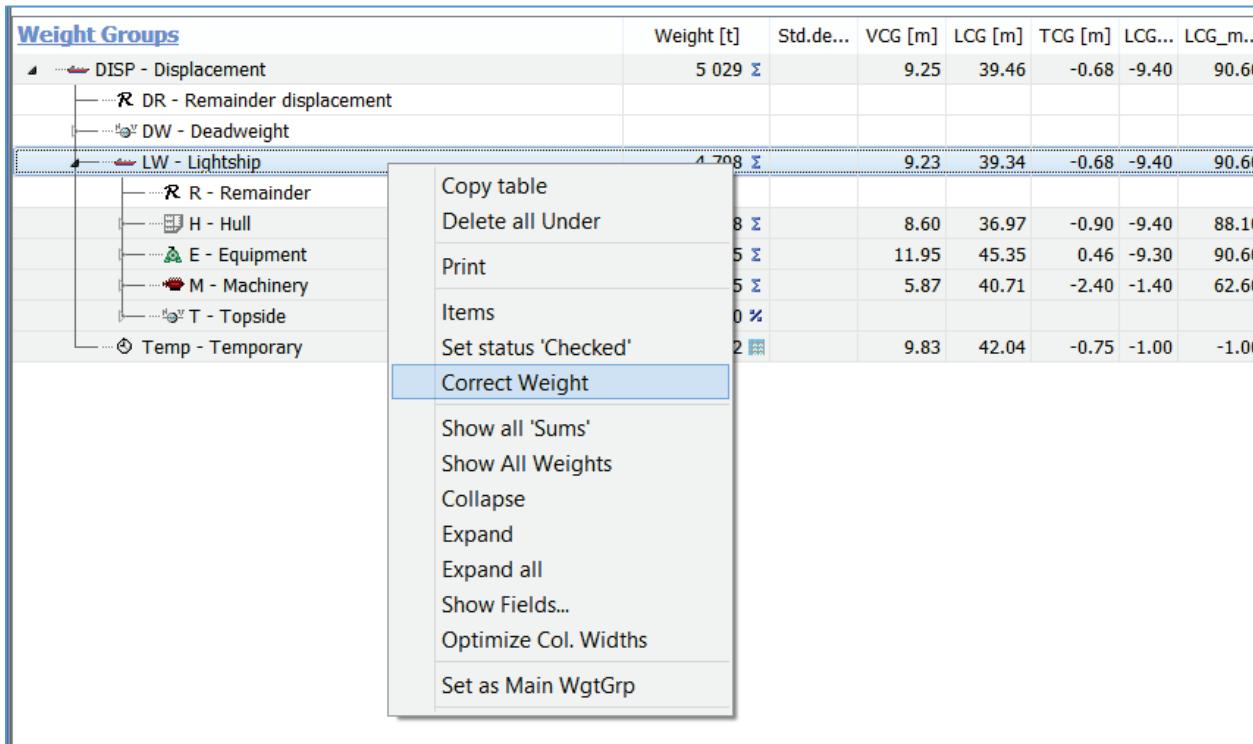
ShipWeight 13 has a connection between the project structure in the “Project folder” and the “Open project” window such that the organization is reflected both places. This has by adding a new list in the open project window that can be used to browse your folders.



Adding a Correction Weight to Adjust a Summary

Sometimes you want to adjust a summary to make it a specific set of values. As an example, you want to adjust the Lightship weight and center of gravity to match the results from a displacement and inclining test.

ShipWeight has a function to let you automatically accomplish this. First, right-click the weight group you want to adjust, and select “Correct Weight” in the submenu that appears.



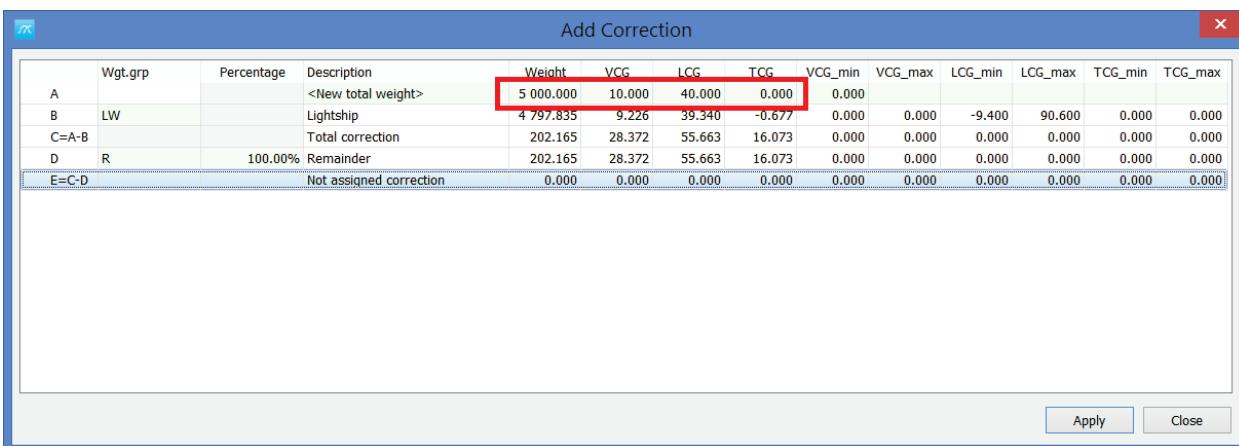
The screenshot shows the 'Weight Groups' table with the following data:

	Weight [t]	Std.de...	VCG [m]	LCG [m]	TCG [m]	LCG... LCG_m...
DISP - Displacement	5 029 Σ		9.25	39.46	-0.68	-9.40 90.60
DR - Remainder displacement						
DW - Deadweight						
LW - Lightship	1 708 Σ		9.23	39.34	-0.68	-9.40 90.60
R - Remainder						
H - Hull						
E - Equipment						
M - Machinery						
T - Topsides						
Temp - Temporary						

The context menu options include:

- Copy table
- Delete all Under
- Print
- Items
- Set status 'Checked'
- Correct Weight** (highlighted)
- Show all 'Sums'
- Show All Weights
- Collapse
- Expand
- Expand all
- Show Fields...
- Optimize Col. Widths
- Set as Main WgtGrp

In the “Add Correction” window that pops up, in row A; fill in the values (weight and CG) you want the summary to have after correction.



Add Correction												
Wgt.grp	Percentage	Description	Weight	VCG	LCG	TCG	VCG_min	VCG_max	LCG_min	LCG_max	TCG_min	TCG_max
A		<New total weight>	5 000.000	10.000	40.000	0.000	0.000	0.000	-9.400	90.600	0.000	0.000
B	LW	Lightship	4 797.835	9.226	39.340	-0.677	0.000	0.000	0.000	0.000	0.000	0.000
C=A-B		Total correction	202.165	28.372	55.663	16.073	0.000	0.000	0.000	0.000	0.000	0.000
D	R	100.00% Remainder	202.165	28.372	55.663	16.073	0.000	0.000	0.000	0.000	0.000	0.000
E=C-D		Not assigned correction	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000



In row B, make sure it displays the correct summary that you want to change. If not correct, click the cell to change the to the correct weight group from the dropdown.

In row D, ShipWeight is suggesting to add the correction to the remainder group. If you want the correction to be added to a different weight group, change this here by clicking the cell and select the desired weight group from the dropdown.

Add Correction

	Wgt.grp	Percentage	Description	Weight	VCG	LCG	TCG	VCG_min	VCG_max	LCG_min	LCG_max	TCG_min	TCG_max
A			<New total weight>	5 000.000	10.000	40.000	0.000	0.000					
B	LW		Lightship	4 797.835	9.226	39.340	-0.677	0.000	0.000	-9.400	90.600	0.000	0.000
C=A-B			Total correction	202.165	28.372	55.663	16.073	0.000	0.000	0.000	0.000	0.000	0.000
D	R	100.00%	Remainder	202.165	28.372	55.663	16.073	0.000	0.000	0.000	0.000	0.000	0.000
E=C-D			Not assigned correction	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Apply Close

Next, still in row D, set if all or only parts of the correction should be applied to the selected group in row D. The default is 100 % - that the full correction will be applied to the group. Click "Apply" button to transfer the calculated values to the main window.

Add Correction

	Wgt.grp	Percentage	Description	Weight	VCG	LCG	TCG	VCG_min	VCG_max	LCG_min	LCG_max	TCG_min	TCG_max
A			<New total weight>	5 000.000	10.000	40.000	0.000	0.000					
B	LW		Lightship	4 797.835	9.226	39.340	-0.677	0.000	0.000	-9.400	90.600	0.000	0.000
C=A-B			Total correction	202.165	28.372	55.663	16.073	0.000	0.000	0.000	0.000	0.000	0.000
D	R	100.00%	Remainder	202.165	28.372	55.663	16.073	0.000	0.000	0.000	0.000	0.000	0.000
E=C-D			Not assigned correction	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Apply Close

The main window is now updated with the corrected weight.

— LW - Lightship	5 000 ₽	10.00	40.00	-0.00
— R - Remainder	202	28.37	55.66	16.07
— H - Hull	3 238 ₽	8.60	36.97	-0.90
— E - Equipment	1 195 ₽	11.95	45.35	0.46
— M - Machinery	365 ₽	5.87	40.71	-2.40